IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Daisuke Kawagoe	Examiner: Ishwar Patel	
Serial No.:	10/646,478	Group Art Unit: 2841	
Filed:	August 22, 2003	Docket: 884.937US1	
Title:	STACKED VIA STRUCTURE THAT INCLUDES A SKIP VIA		
Customer Number: 21186			

REPLY BRIEF UNDER 37 C.F.R. § 41.41

MS APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANT'S REPLY BRIEF

This Reply Brief is filed in response to the Examiner's Answer (hereinafter, the "Answer"), mailed August 9, 2007, and supplements the Appeal Brief filed by the Appellant on April 2, 2007 and June 7, 2007. Please charge any required additional fees or credit overpayments to Deposit Account 19-0743.

Argument

The Appellant has reviewed the Answer, and believes the statements in the Appeal Brief remain accurate and compelling. In responding to the Answer, the Appellant would like to further explore a selected few of the points raised by the Office.

The Examiner states at page 15 of the Examiner's Answer that:

> "As clearly shown in the marked up figure (6, appendix "A"), via (57) is a skip via passing through first (D1) and second (D2) dielectric layers and in direct contact with the second conductor layer (C2). Therefore, the structure of Carpenter as shown in marked up figure (6) shows "the second conductive layer (C2) including a first skip via (57) that extend through the first (D1) and second (D2) dielectric layers" as recited in the claim. This is a structural claim and figure (6) as explained, discloses the final structure as recited in the claim. Different cross hatching pattern identifies the conductor layer and the via, but as a whole discloses the structure as recited in the claim. Therefore, Carpenter et al. meets the limitation."

Appellant notes that the Examiner appears to acknowledge in these statements that the via 57 is "in direct contact with" the second layer C2 instead of being included in the second conductive layer as recited in the claims. Appellant respectfully submits that Carpenter does not

describe "the final structure as recited in the claim" as suggested by the Examiner. Appellant specifically notes that Carpenter does not disclose "the second conductive layer including a first skip via that extends through the first and second dielectric layers" as recited in claim 40.

The Examiner further states at pages 15-16 of the Examiner's Answer that:

> "As clearly shown in the marked up figure (6, appendix A"), via (26) pass through the dielectric layer (D3) and in direct contact with the conductor layer (C3). Therefore, the structure of Carpenter as shown in marked up figure (6) shows "the third conductive layer (C3) including a second via (26) that extends through the third dielectric layer" as recited in the claim. This is a structural claim and figure (6, marked up), as explained, discloses the final structure as recited in the claim. Different cross hatching pattern identifies the conductor layer and the via, but as a whole discloses the structure as recited in the claim. Therefore, Carpenter et al. meets the limitation."

Appellant again notes that the Examiner appears to acknowledge in these statements that the via 26 is "in direct contact with" the third conductive layer C3 instead of being included in the third conductive layer as recited in the claims. Appellant further notes that the Examiner also appears to acknowledge that "Different cross hatching pattern identifies the conductor layer and the via." Appellant specifically notes that Carpenter does not disclose "the third conductive layer including a second via that extends through the third dielectric layer" as recited in claim 40.

The Examiner also states at pages 16-17 of the Examiner's Answer that:

> "As clearly shown in the marked up figure (7, appendix "B") the first skip via (V1) extend through the first (D1) and second (D2) dielectric layers and is in direct contact with the second conductive layer (C3). This is a structural claim and the figure (7, marked up), as explained, discloses the final structure as recited in the claim. Therefore, Carpenter discloses, "the second conductive layer (C3) including a first skip via (V1) that extends through the first (D1) and second (D2) dielectric layers". Different cross hatching pattern identifies the conductor layer and the via, but as a whole discloses the structure as recited in the claim. Therefore, Carpenter et al. meets the limitation."

Appellant again notes that Examiner appears to acknowledge in these statements that the first skip via V1 is "in direct contact with" the second conductive layer C3 instead of being included in the third conductive layer as recited in the claims. Appellant respectfully submits that if Carpenter described "the final structure as recited in the claim" as suggested by the Examiner, then the second conductive layer C3 would include the first skip via V1. Appellant

specifically notes that Carpenter does not disclose "the second conductive layer including a first skip via that extends through the first and second dielectric layers" as recited in claim 47.

The Examiner further states at page 17 of the Examiner's Answer that:

> "As clearly shown in the marked figure (7, appendix "B") the second skip via (V2) extends through the third (D3) and fourth (D4) dielectric layers and in direct contact with the fourth conductive layers (C5). This is a structural claim and the figure (7, marked up), as explained, discloses the final structure as recited in the claim. Therefore, Carpenter discloses "the fourth conductive layer (C5) including a second skip via (V2) that extends through the third (D3) and fourth (D4) dielectric layers" as recited in the claim. Different cross hatching pattern identifies the conductor layer and the via, but as a whole discloses the structure as recited in the claim. Therefore, Carpenter et al. meets the limitation."

Appellant similarly notes that Examiner appears to acknowledge in these statements that the second skip via V2 is "in direct contact with" the fourth conductive layer C5 instead of being included in the fourth conductive layer as recited in the claims. Appellant respectfully submits that if Carpenter described "the final structure as recited in the claim" as suggested by the Examiner, then the fourth conductive layer C5 would include the second skip via V2. Appellant specifically notes that Carpenter does not disclose "the fourth conductive layer including a second skip via that extends through the third and fourth dielectric layers, the second skip via and the first skip via being stacked on top of one another" as recited in claim 47.

The Appellant submits that all of the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Appellant's attorney at (262) 646-7009 to facilitate the prosecution of this application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

DAISUKE KAWAGOE

By his Representatives,
SCHWEGMAN, LUNDBERG & WOESSNER, P.A.
P.O. Box 2938
Minneapolis, Minnesota 55402
(262) 646-7009

By /Andrew Peret/
Andrew R Peret
Reg. No. 41,246